

## Area Valve Service Unit (AVSU) Wallzone

HTM02-01 / HTM2022 / ISO7396-1

### SPECIFICATION

The Wallzone Area Valve Service Unit (AVSU) Module may contain a local area medical gas alarm and a maximum of six area valve service units. The Wallzone shall be pre-piped, wired and tested ready for installation into a finished building. Medical gas/vacuum services are fixed copper pipes going to and coming from their respective area valve service units, and shall normally terminate in 22mm copper stub pipes for pressure gas installations and 22 or 28mm stub pipes for oxygen and vacuum installations. Pipes shall normally be connected at ceiling level. The position of copper stub pipes needs to be aligned by the correct choice of "installation size" when ordering the equipment. The different installation lengths are 1300, 1500, 1700 and 1900 mm for Surface modules and 1320, 1520, 1720 and 1920 mm for Semi-flush modules. Area valve service units shall be BeaconMedaes ZSU<sup>2</sup> type and shall conform to BS EN ISO 5359, HTM 02-01 and BS EN ISO 7396-1. The ZSU<sup>2</sup> shall provide a zone isolation facility, for use either in an emergency or for maintenance purposes.

#### Emergency Access

The 2nd fix shall include a transparent plastic window incorporating the words 'Pull in Emergency and Close Valve'. In order to gain access in an emergency, a ring pull shall be fitted to the removable portion of the window. The emergency access mechanism shall be safely operable by a 5th percentile woman without the use of a tool. Glass windows shall not be used. It shall not be possible to refit or reset the means of emergency access.

#### Materials

The second fix assembly shall be manufactured from metal and can be easily mounted via 4 x M5 screws (surface) or 4 x M6 screws (semi flush).

All wetted parts (except seals and gaskets) shall be brass or copper. Copper pipe shall be manufactured from phosphorous de-oxidised non-arsenical copper to EN 1412 grade CW024A, manufactured to metric outside diameters in accordance with EN 13348:2001R250 (half hard). Copper to copper joints shall be made using a silvercopper-phosphorous brazing alloy type CP1 or CP4 to BS EN ISO 17672 using a dry, clean, oil and oxygen free nitrogen inert gas shield with no flux. Each Wallzone assembly shall be factory tested for gas tightness. Rubber pipe grommets shall be provided to ensure any leaking gas does not escape from the Wallzone into a wall cavity. All elastomeric gas seals shall be manufactured from Viton with a Shore hardness of 75.

#### Gas Specific Connections

The area valve service unit shall be fully gas specific and labelled to identify the medical gas service. The gas specific shrouds shall clearly show the gas service and use colour coding to BS EN ISO 5359. Shrouds shall be pin indexed such that the only the correct shroud can be fitted to each 1st fix. Gas specific NIST connections to BS EN ISO 5359 shall be incorporated on each side of the line valve and include a permanently fitted gas identification label. Pressure gas service (not vacuum) NIST connections shall incorporate 100% self sealing valves which, held closed by gas pressure until insertion of the appropriate gas specific male NIST fitting. Additional sealing of NIST fittings shall be achieved using blank NIST nuts, with a knurled outer diameter. The blank NIST nuts shall include an internal 'O' ring groove and 'O' ring to seal on the smooth outer diameter of the female NIST. Blank NIST nuts shall be hand tightened only. Each NIST connection shall be capable of providing a free air flow rate of 300 l/min with a pressure drop of 0.4 bar from a 4 bar nominal inlet pressure.

#### Local Alarm Pressure Sensors

The area valve service unit shall normally accommodate local alarm pressure sensors. Optionally, pressure sensors may be fitted within a high level access panel. Pressure sensor connections shall incorporate minimum leak pressure sensor connection ports. Wetted parts of pressure sensors shall be manufactured from inherently corrosion proof materials. Plating or sacrificial protection on mild steel is not acceptable.

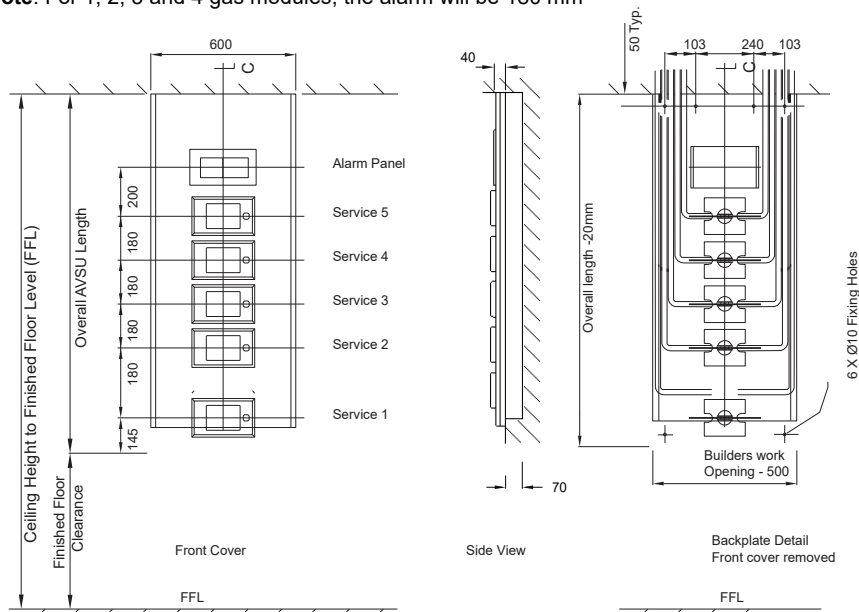
#### CE Marking

The standard range of BeaconMedaes Area Valve Service Unit (AVSU) systems are 'CE' marked with approval from a notified body (more detailed information available on request).



**Wall Mounted • Semi Flush • Mounted Surface Mounted**

**Note:** For 1, 2, 3 and 4 gas modules, the alarm will be 180 mm


**Semi-flush Mounted up to Five Gases**
**Installation size**

Height	1320 mm
	1520 mm
	1720 mm
	1920 mm

Width	600 mm
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**Protrusion (from wall)**

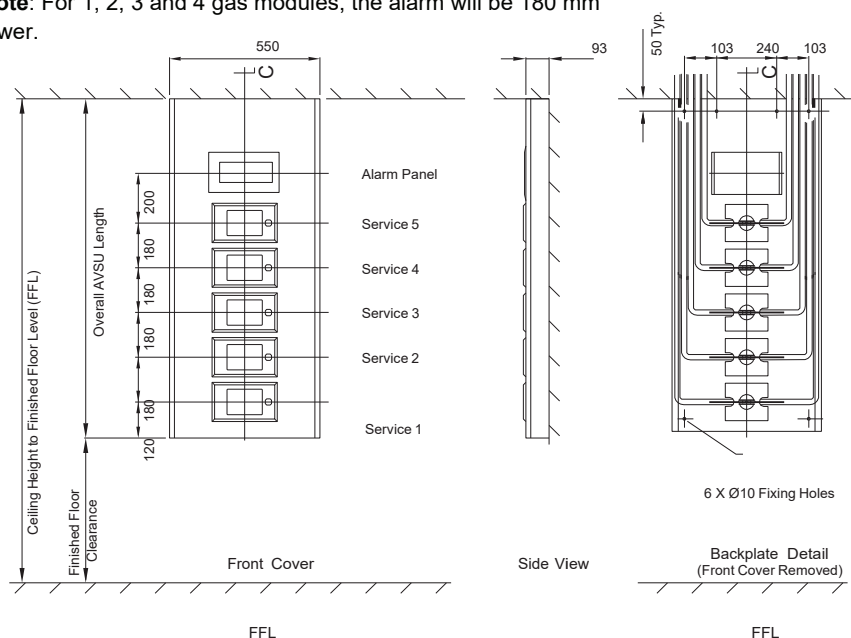
40 mm

**Depth into wall**

70 mm ± 5 mm

All measurements are in millimeters

**Note:** For 1, 2, 3 and 4 gas modules, the alarm will be 180 mm lower.


**Surface Mounted up to Five Gases**
**Installation size**

Height	1300 mm
	1500 mm
	1700 mm
	1900 mm

Width	550 mm
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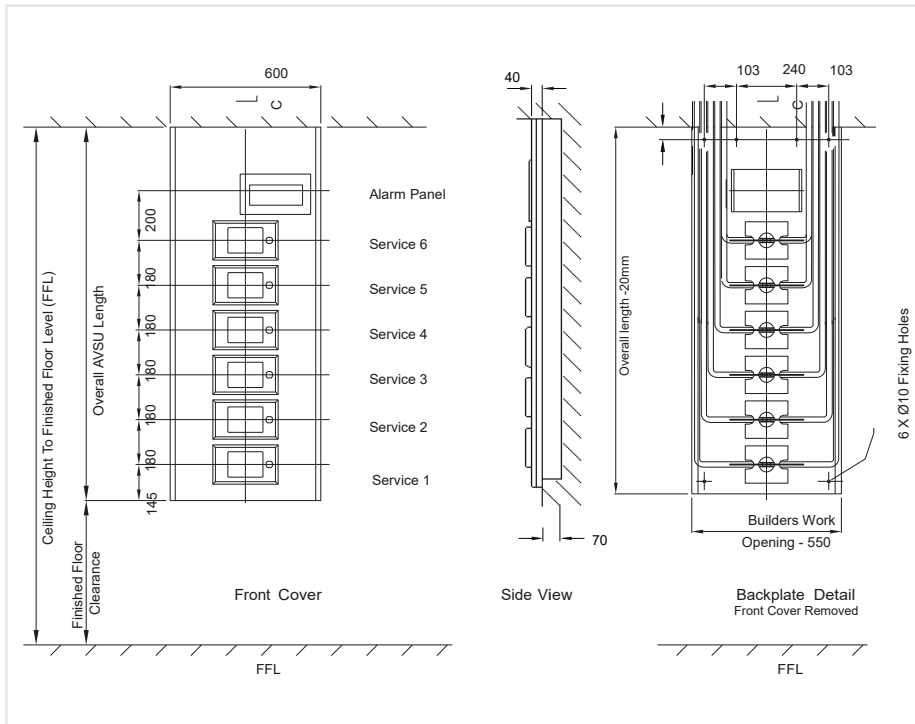
**Protrusion (from wall)**

93 mm

**Depth into wall**

Nil

All measurements are in millimeters

**Wall Mounted • Semi Flush • Mounted Surface Mounted**


All measurements are in millimeters

**Semi-flush Mounted Six Gas**
**Installation size**

Height 1520 mm  
1720 mm  
1920 mm

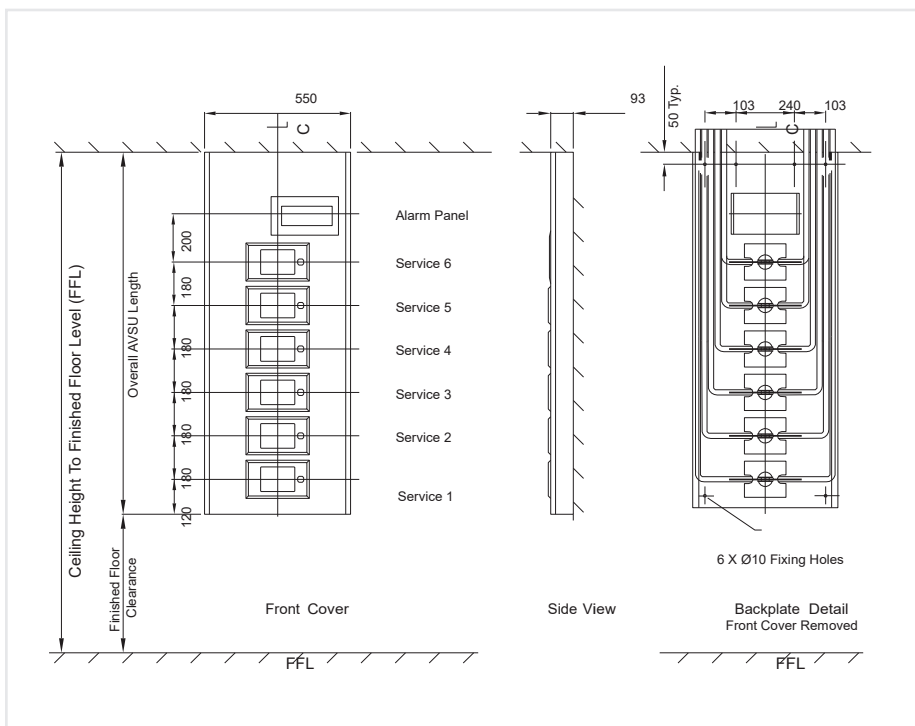
Width 600 mm

**Protrusion (from wall)**

40 mm

**Depth into wall**

70 mm ± 5 mm



All measurements are in millimeters

**Surface Mounted Six Gas**
**Installation size**

Height 1500 mm  
1700 mm  
1900 mm

Width 550 mm

**Protrusion (from wall)**

93 mm

**Depth into wall**

Nil

## Ordering

Part No	Description	Size
WZx/YYxx/N	Wallzone with Medipoint 26 alarm and pressure sensors	1 Gas
WZxx/YYxx/N		2 Gas
WZxxx/YYxx/N		3 Gas
WZxxxx/YYxx/N		4 Gas
WZxxxxx/YYxx/N		5 Gas
WZxxxxxx/YYxx/N		6 Gas

Part No	Description	Size
WZx/NYxx/N	Wallzone with pressure sensors, no alarm	1 Gas
WZxx/NYxx/N		2 Gas
WZxxx/NYxx/N		3 Gas
WZxxxx/NYxx/N		4 Gas
WZxxxxx/NYxx/N		5 Gas
WZxxxxxx/NYxx/N		6 Gas

Part No	Description	Size
WZx/NNxx/N	Wallzone without pressure sensors, no alarm	1 Gas
WZxx/NNxx/N		2 Gas
WZxxx/NNxx/N		3 Gas
WZxxxx/NNxx/N		4 Gas
WZxxxxx/NNxx/N		5 Gas
WZxxxxxx/NNxx/N		6 Gas

Part No	Description
VAC28ADD	Extra for installing 28mm vacuum ZSU2

